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ESTIMATES FOR BARK BEETLE CONTROL WORK FOR F. Y. 1932

Sequoia National Park
June 12, 1931

In compliance with the Director's request that estimates for the 1932 insect control work be submitted not later than August 31, 1931 the following figures have been prepared. As insect surveys are conducted most advantageously and accurately in the fall, these estimates are based on the 1930 fall survey. Topographical observations taken this spring of areas observed last fall showed no outstanding change in the number of beetle killed trees.

Completion of 1931 spring control work.

The control work this spring was done at a total cost of $4608.38. Past experinece in beetle control work has proven the necessity for for a clean-up job the year following a control project. Therefore $2300. should be appropriated to carry on this work, the amount being apportioned as follows:

Marblefork-Yucca Creek Area-----	$ 800.00
Middlefork----------	1000.00
Horse Creek----------	500.00
Total clean-up fund	$2300.00

In addition to the above amount $1395.00 will be needed to complete the work carried on this spring. This estimate is based upon the number of trees remaining that should have treated. In the Marblefork and Middlefork areas it was considered too dangerous to continue the work because of the forest fire hazard. The Horse Creek Area was not completed because of the exhaustion of funds. The cost per tree is based upon the 1931 spring control work but is reduced because the spring work was high due to difficult working conditions.

Area	No. of trees	Cost per tree	Total cost
Marblefork-Yucca Creek	35	$15.00	$ 525.00
Middlefork	50	15.00	750.00
Horse Creek	40	4.00	160.00
Total amount needed			$1435.00

Because of the inadequate appropriation it was impossible to do control work in the Southfork although that area was included in the 1931 spring project. and $1370.00 was allotted for it. This was based upon 165 trees. The experience of the 1931 spring control work shows that this cost is too low. Considering the extremely rough country of the Southfork the control cost will be about $20.00 per tree.which will make the cost of the project $3300.00

Southfork Area--No. of trees	Cost per tree	Total cost
165	$20.00	$3300.00

The Southfork is considered worth this expenditure because it is to be made accessible by a road crossing the southeast corner of the Park. It will as a result, because of the numerous streams, become a very popular camping area. To insure the beauty as well as favorable camping conditions

the trees should be protected as it has been accepted by the Park Service that areas of future development warrant beetle control work.

Following is a recapitulation of the estimates for money needed to complete control work conducted this spring:

	Clean-up	For completion of project	Total for each area
Marblefork-Yucca Creek	$ 800.00	$ 525.00	$1325.00
Middlefork	1000.00	750.00	1750.00
Horse Creek	500.00	160.00	660.00
Southfork		3300.00	3300.00
Total amount needed			$ 6035.00

South Side of the Middlefork.

Because of its visibility from Moro Rock and the High Sierra Trailit was agreed that the north side of the Middlefork watershed should be treated. Money was appropriated and the work conducted thsi spring. Due to the comparative greater importance of the other Park areas the south side of the Middlefork was not included.although the 1930 survey revealed an epidemic condition there. Control measures on the south side are now strong ly recommended for themfollowing reasons:

1-- It is a center of infection to the north side.

Entomologists have determined that the bark beetle will fly two miles. The north side is therefore within easy flying distance of the beetle infested south side. To protest the north side and insure the success of the work conducted there, the infestation of the south side should be eliminated.

2--It is clearly visible to every Park visitor from the General's High way,Moro Rock and the High Sierra Trail and therefore should be treated for esthetic reasons.

One reason for the work on the north side was because it is within view of the Park visitors. The south side stands out even more conspicuously because it is on the opposite side of the Middlefork basin form the Giant Forest view points.

3--It represents a serious fire hazard.

The beetle epidemic is progressing so rapidly that scores of dead trees are being added each year. It is generally agreed that st standing dead trees add greatly toward the seriousness of forest fire conditions. In the case under discussion this consideration is accentuated for the following reasons:

a-The Middlefork is a popular fishing stream and the nearby territory is therefore exposed to careless fishermen, who as a class are responsible for most forest fires.

b-The area betweenthe stream and the yellow pine type is chaparral and black oak with grassy slopes intermixed. This constitutes a very inflamable ground cover.

c-The slope is very steep with no natural barriers, hence offering a splendid running chance for fires.

d-The area under discussion is partly under the Paradise Grove of Big Trees which would be seriously injured it a fire swept into them. As this Park was set aside for the preservation of the Big Trees, this consideration should be given an important place.

e-A forest fire on the south slope would largely ruin one of the most beautiful vistas in the country--the view from Moro Rock. This also supplements esthetic reasons under reason No. 2

Based upon the 1930 survey the following estimates are offered:

Sub-area	No. of trees	Cost per tree	Total cost
Dome Creek	56	$18.00	$1008.00
Bet. Dome and Castle Creekd	90	18.00	1620.00
Castle Creek	68	18.00	1224.00
E. of Castle Crk.	52	18.00	936.00
Paradise Creek	180	15.00	2700.00
Total Amount needed	496		$7488.00

$18.00 per tree is given for the first four areas because these are not accessible by trail and are in a very rough country. $15.00 per tree is estimated for Paradise Creek because this region is accessible by trail and the camp can be established quite close to the scene of operations

Total Amount Needed for 1933 F. Y.

Amount needed to supplement 1931 spring project--$6035.00
Amount needed for south side of the Middlefork---$7488.00
Total amount required $13523.00

The major portion of the control work shouldbe done this fall as the autumn work is more satisfactory than the spring work.from entomological as well as fire hazard standpoints.

The one area that can be most advantageously treated in the fall is the Paradise because there is a shortage of water here in the late summer. This fact, however, need not be considered in the appropriation as the money can be held over for that section of the project.

Because of the scattered location of the control areas a portion of the above amount should be made available this fall and the balance the following spring. For the greatest success of the work as well as economically I think that the 1931 spring project should be cleaned up this fall. Then in the spring of 1932 our efforts can be concentrated on the difficult and important area on the south side of the Middlefork.

Therefore, $6035.00 is the amount needed this fall
$7488.00 is the amount needed next spring.

Respectfully submitted:

Frank Been

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